Day/ Night Color Camera

User Manual

V 2.1.0

Hikvision Digital Technology Co., Ltd.

Thank you for purchasing our product. If there is any question or request, please do not hesitate to contact dealer.
This manual is applicable to DS-2CC5102P(N)、DS-2CC5112P(N)、DS-2CC5172P(N)、DS-2CC5182P(N)、DS-2CC5192P(N) Day / Night Color Camera.
This manual may contain several technically incorrect places or printing errors, and the content is subject to change without notice. The updates will be added into the new version of this manual. We will readily improve or update the products or procedures described in the manual.

Safety Instructions

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may cause if any of the warnings is neglected.

Cautions: Injury or equipment damage may cause if any of the cautions is neglected.

Warnings Follow these safeguards to prevent serious injury or death.	**Cautions** Follow these precautions to prevent potential injury or material damage.

Warnings

1. In the use of the product, you must be strict compliance with the electrical safety regulations of the nation and region.
2. Input voltage should meet both the SELV(Safety Extra Low Voltage) and the Limited Power Source with DC 12V according to the IEC60950－1 standard. Please refer to technical specifications for detail information.
3. Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
4. Please make sure that the plug is firmly connected on the power socket.
5. When the product is mounted on wall or ceiling, the device shall be firmly fixed.
6. If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
7. If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

Cautions：

1. Make sure the power supply voltage is correct before using the camera.
2. Do not drop the camera or subject it to physical shock.
3. Do not touch CCD (Charge Coupled Device) modules with fingers. If cleaning is necessary, use clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period, please turn on the lens cap to protect the CCD from dirt.
4. Do not aim the camera at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of CCD at the same time.
5. The CCD may be burned out by a laser beam, so when any laser equipment is on using, make sure that the surface of CCD will not be exposed to the laser beam.
6. Do not place the camera in extremely hot, cold(the operating temperature shall be－10℃～＋60℃), dusty or damp locations, and do not expose it to high electromagnetism radiation.
7. To avoid heat accumulation, good ventilation is required for operating environment.
8. Keep the camera away from liquid while on using.
9. While on a delivery, the camera shall be packed in its original packing, or packing of the same texture.
10. Regular part replacement: a few parts (e.g. electrolytic capacitor) of the equipment shall be replaced regularly according to their average enduring time. The average time varies because of differences between operating environment and using history, so regular checking is recommended for all the users. Please contact with your dealer for more details.

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Chapter 1 Introduction

1.1 Features

This series of the camera adopt high performance sensor and advanced print circuit board design technology with high resolution, low distortion and low noise, etc. The key features as following:

- High performance image sensor CCD, high resolution, capable of providing clear images.
- Low illumination, color/B&W auto switch.
- Backlight compensation
- Auto white balance
- Auto electronic shutter control, adaptive to different environments.
- Auto gain control, with brightness adaptive.
- 3 Axis adjustment.
- Advanced technique design, with high reliability.

1.2 Functions

ICR Switch: The camera provides two operation modes: color, and B&W. You can increase sensitivity in low light conditions by switching to B&W mode (removing the IR cut filter). Color mode is preferred in normal lighting conditions.

AGC: AGC allows users to adjust the gain of amplifier, enabling the camera to output the standard video signal in different lighting conditions. As scene lighting decreases, the system will automatically adjust, adding a mixture of AGC and slow shutter according to the AGC limit setting. In low illumination, AGC will increase camera's sensitivity, and output bright and clear video.

S/N ratio: It refers to the ratio between signal voltage and noise voltage. While the ratio is larger, the effect of noise is less, and the image is more spotless.

White Balance: This feature automatically processes the viewed image to retain color balance over a color temperature range.

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1.3 Description of Dome Camera

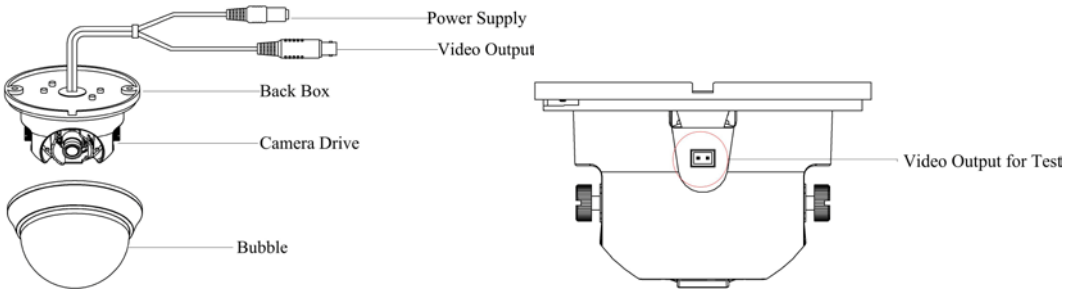


Figure 1.4

Chapter 2 Installation

Prior to mounting, please make sure that the device in the package is in good condition and all the assembly parts are complete.

2.1 Dome Camera Mounting

The following section has described the DS-2CC5102P(N)、DS-2CC5112P(N)、DS-2CC5172P(N)、DS-2CC5182P(N)、DS-2CC5192P(N) series dome camera installation as the example.

Note: the mounting wall must be with certain thickness and capable of supporting three times the weight of dome camera.

1. Use your hands to hold the back box of dome camera and then rotate the bubble in anti-clockwise direction to remove it.

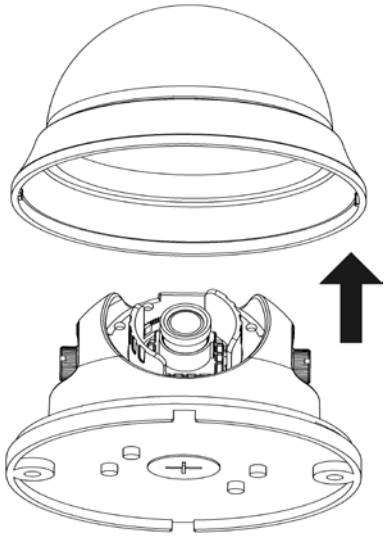


Figure 2.1.1 Remove the Bubble

2. By referring to the Figure 2.1.2, use the self-tapping screws to secure the back box of dome camera to the wall.

   Note: the expansion screws are required for the cement wall mounting application.

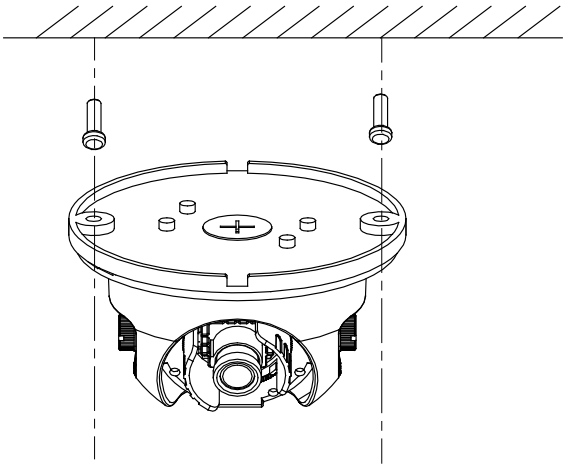


Figure 2.1.2 Secure Back Box to the Wall

3. Adjust the lens to the desired monitoring location and obtain the clear images. This series dome camera has the pan movement range of 0~355°, the tilt movement range of 0~90°and the rotate movement range of 0~355° .

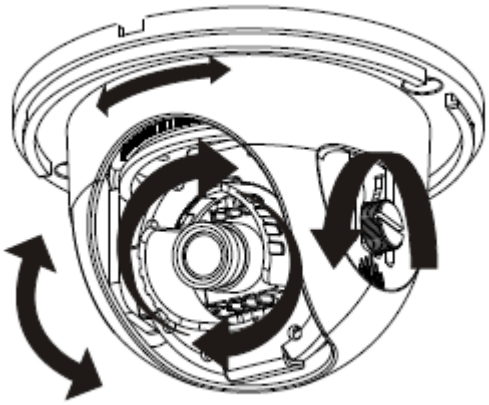


Figure 2.1.3 Adjust Lens Orientation

4. Rotate the bubble in clockwise direction to replace it to the dome camera.

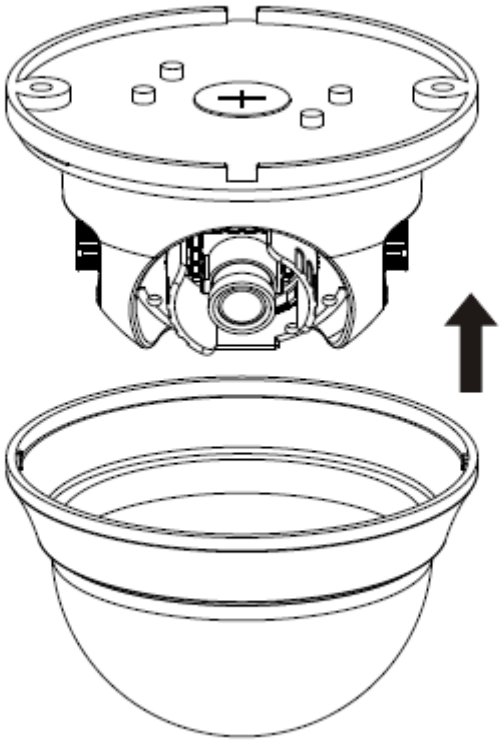


Figure 2.1.4 Replace the Bubble

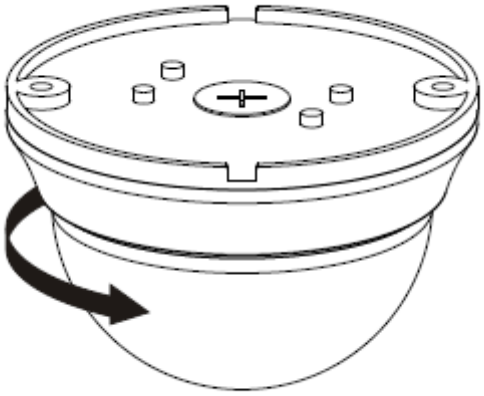


Figure 2.1.5 accomplished

2.2 Dome Electrical Box Adapter Installation

The following section has described the DS-2CC5102P(N)、DS-2CC5112P(N)、DS-2CC5172P(N)、DS-2CC5182P(N)、DS-2CC5192P(N) series dome camera installation as the example.

1. Attach DS-1244ZJ to Electrical Box Adapter as shown in Figure 2.2.1

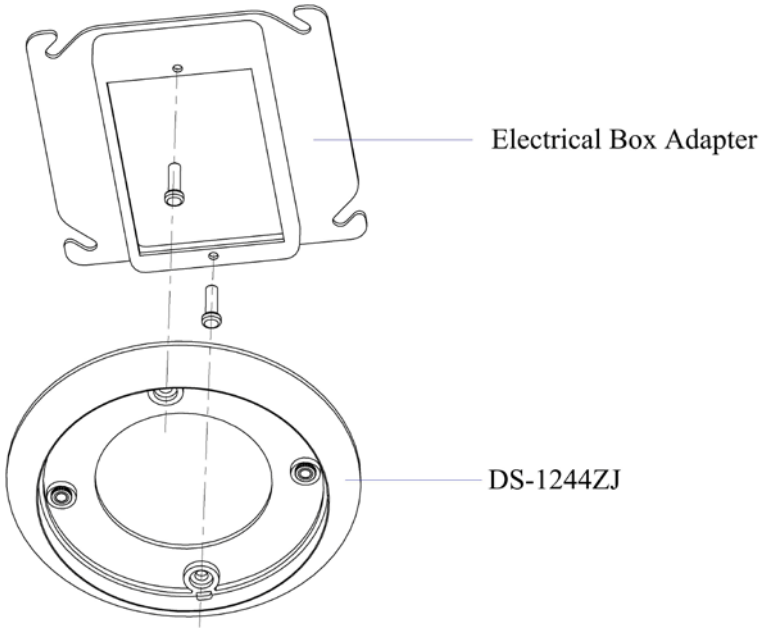


Figure 2.2.1

2. Attach Dome to DS-1244ZJ as shown in Figure 2.2.2,Please reference ***Dome Camera Mounting*** if needed.

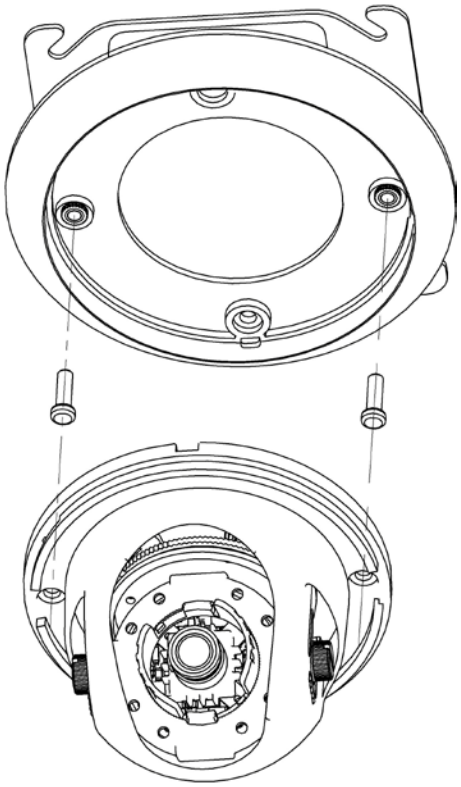


Figure 2.2.2

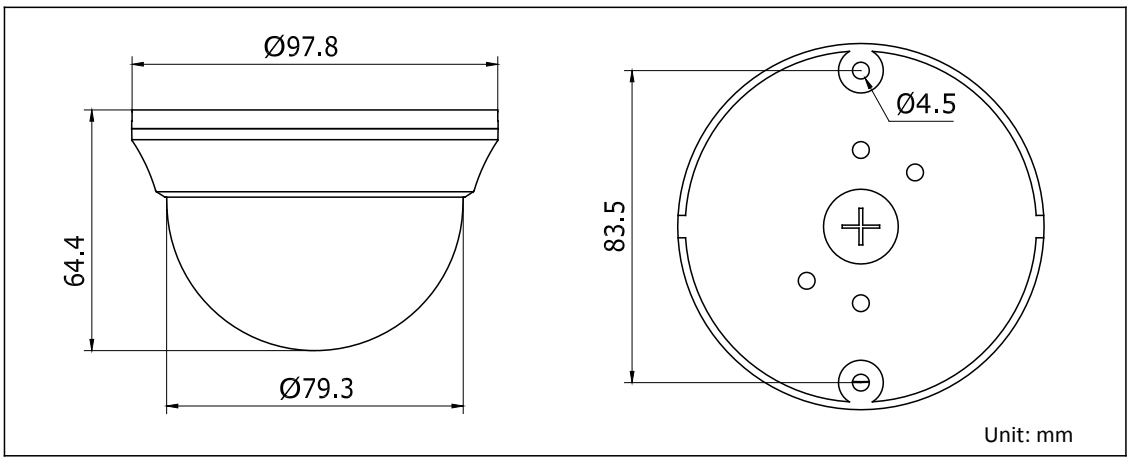
Appendix

DS-2CC5102P(N)

Specifications

Model / Parameter	DS-2CC5102P(N)
	420 TVL CCD Dome Camera
Camera	
Image Sensor	1/3” SONY Super HAD CCD II
Signal System	PAL/NTSC
Effective Pixels	PAL: 500 (H) × 582 (V) NTSC: 510 (H) × 492 (V)
Min. Illumination	0.1 Lux @ (F1.2, AGC ON) 0.28 Lux @ (F2.0, AGC ON)
Shutter Time	PAL: 1/50 s to 1/100,000 s NTSC: 1/60 s to 1/100,000 s
Lens	3.6 mm @ F2.0 (2.8 mm, 6 mm, 8 mm, 12 mm, 16 mm optional)
	Angle of view: 78° (3.6 mm)
Lens Mount	M12
Angle Adjustment	Pan: 0 - 355°, Tilt: 0 - 90°, Rotation: 0 - 355°
Day & Night	Electronic
Horizontal Resolution	420 TVL
Synchronization	Internal synchronization
Video Output	1Vp-p composite output (75 Ω/BNC); Test monitor out [1Vp-p composite output (75 Ω/BNC), device line]
S/N Ratio	More than 50 dB
General	
Operating Conditions	-10 °C - 60 °C (14 °F - 140 °F) Humidity 90% or less (non-condensing)
Power Supply	12 V DC ± 10%
Power Consumption	Max. 2 W
Dimension	Φ 97.8 x 64.4 mm (ϕ 3.85” x 2.54”)
Weight	300 g (0.66 lbs)

Dimensions

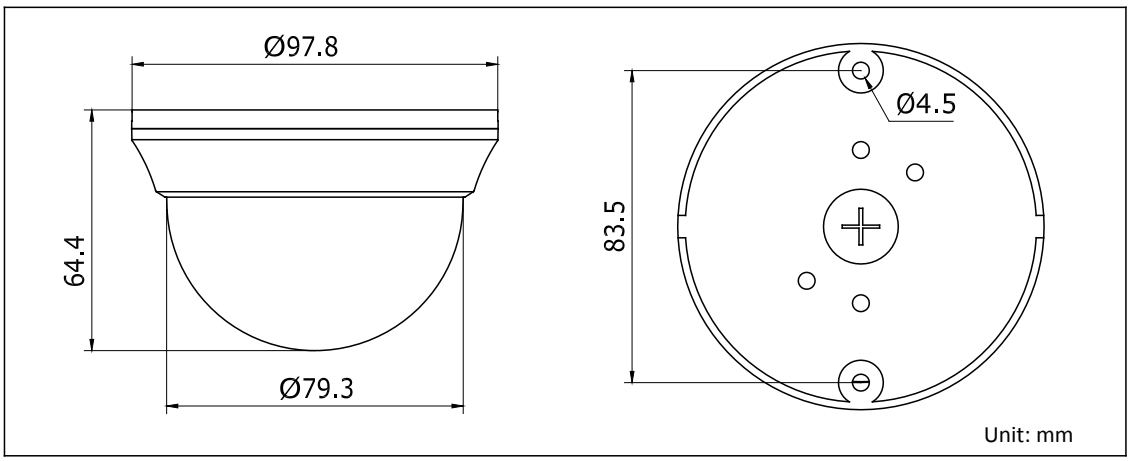


DS-2CC5112P(N)

Specification

Model / Parameter	DS-2CC5112P(N)
	480 TVL CCD Dome Camera
Camera	
Image Sensor	1/3” SONY Super HAD CCD II
Signal System	PAL/NTSC
Effective Pixels	PAL: 752 (H) × 582 (V) NTSC: 768 (H) × 494 (V)
Min. Illumination	0.1 Lux @ (F1.2, AGC ON) 0.28 Lux @ (F2.0, AGC ON)
Shutter Time	PAL: 1/50 s to 1/100,000 s NTSC: 1/60 s to 1/100,000 s
Lens	3.6 mm @ F2.0 (2.8 mm, 6 mm, 8 mm, 12 mm, 16 mm optional)
	Angle of view: 78° (3.6 mm)
Lens Mount	M12
Angle Adjustment	Pan: 0 - 355°, Tilt: 0 - 90°, Rotation: 0 - 355°
Day & Night	Electronic
Horizontal Resolution	480 TVL
Synchronization	Internal synchronization
Video Output	1Vp-p composite output (75 Ω/BNC); Test monitor out [1Vp-p composite output (75 Ω/BNC), device line]
S/N Ratio	More than 52 dB
General	
Operating Conditions	-10 °C - 60 °C (14 °F - 140 °F) Humidity 90% or less (non-condensing)
Power Supply	12 V DC ± 10%
Power Consumption	Max. 2 W
Dimension	Φ 97.8 x 64.4 mm (ϕ 3.85” x 2.54”)
Weight	300 g (0.66 lbs)

Dimensions

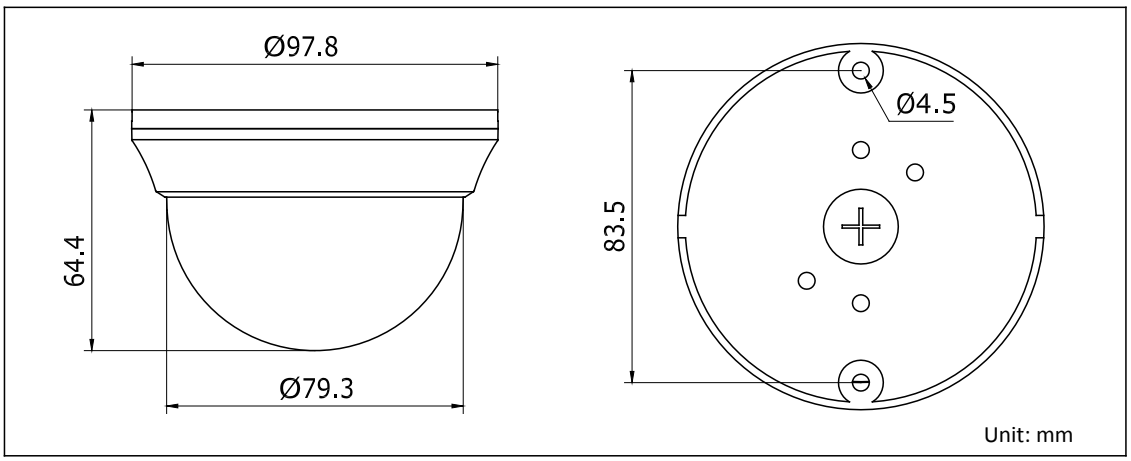


DS-2CC5172P(N)

Specifications

Model / Parameter	DS-2CC5172P(N)
	540 TVL CCD Dome Camera
Camera	
Image Sensor	1/3” SONY Super HAD CCD II
Signal System	PAL/NTSC
Effective Pixels	PAL: 752 (H) × 582 (V) NTSC: 768 (H) × 494 (V)
Min. Illumination	0.1 Lux @ (F1.2, AGC ON) 0.28 Lux @ (F2.0, AGC ON)
Shutter Time	PAL: 1/50 s to 1/100,000 s NTSC: 1/60 s to 1/100,000 s
Lens	3.6 mm @ F2.0 (2.8 mm, 6 mm, 8 mm, 12 mm, 16 mm optional)
	Angle of view: 78° (3.6 mm)
Lens Mount	M12
Angle Adjustment	Pan: 0 - 355°, Tilt: 0 - 90°, Rotation: 0 - 355°
Day & Night	Electronic
Horizontal Resolution	540 TVL
Synchronization	Internal synchronization
Video Output	1Vp-p composite output (75 Ω/BNC); Test monitor out [1Vp-p composite output (75 Ω/BNC), device line]
S/N Ratio	More than 52 dB
General	
Operating Conditions	-10 °C - 60 °C (14 °F - 140 °F) Humidity 90% or less (non-condensing)
Power Supply	12 V DC ± 10%
Power Consumption	Max. 2 W
Dimension	Φ 97.8 x 64.4 mm (ϕ 3.85” x 2.54”)
Weight	300 g (0.66 lbs)

Dimensions

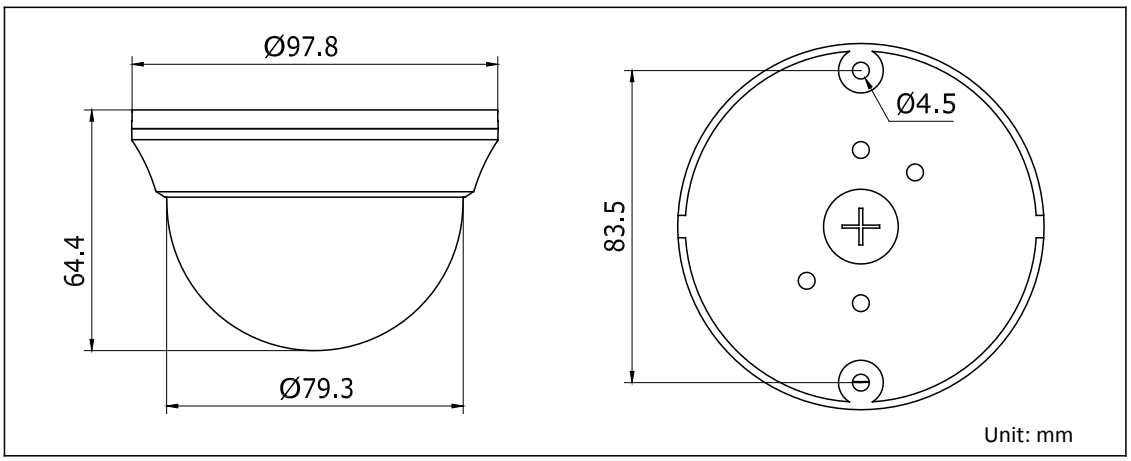


DS-2CC5182P(N)

Specifications

Model / Parameter	DS-2CC5182P(N)
	600 TVL CCD Dome Camera
Camera	
Image Sensor	1/3” SONY Super HAD CCD II
Signal System	PAL/NTSC
Effective Pixels	PAL: 752 (H) × 582 (V) NTSC: 768 (H) × 494 (V)
Min. Illumination	0.1 Lux @ (F1.2, AGC ON) 0.28 Lux @ (F2.0, AGC ON)
Shutter Time	PAL: 1/50 s to 1/100,000 s NTSC: 1/60 s to 1/100,000 s
Lens	3.6 mm @ F2.0 (2.8 mm, 6 mm, 8 mm, 12 mm, 16 mm optional)
	Angle of view: 78° (3.6 mm)
Lens Mount	M12
Angle Adjustment	Pan: 0 - 355°, Tilt: 0 - 90°, Rotation: 0 - 355°
Day & Night	Electronic
Horizontal Resolution	600 TVL
Synchronization	Internal synchronization
Video Output	1Vp-p composite output (75 Ω/BNC); Test monitor out [1Vp-p composite output (75 Ω/BNC), device line]
S/N Ratio	More than 52 dB
General	
Operating Conditions	-10 °C - 60 °C (14 °F - 140 °F) Humidity 90% or less (non-condensing)
Power Supply	12 V DC ± 10%
Power Consumption	Max. 2 W
Dimension	Φ 97.8 x 64.4 mm (ϕ 3.85” x 2.54”)
Weight	300 g (0.66 lbs)

Dimensions



DS-2CC5192P(N)

Specifications

Model / Parameter	DS-2CC5192P(N)
	650 TVL CCD Dome Camera
Camera	
Image Sensor	1/3” SONY EXView HAD CCD II
Signal System	PAL/NTSC
Effective Pixels	PAL: 976 (H) × 582 (V) NTSC: 976 (H) × 494 (V)
Min. Illumination	0.1 Lux @ (F1.2, AGC ON) 0.28 Lux @ (F2.0, AGC ON)
Shutter Time	PAL: 1/50 s to 1/100,000 s NTSC: 1/60 s to 1/100,000 s
Lens	3.6 mm @ F2.0 (2.8 mm, 6 mm, 8 mm, 12 mm, 16 mm optional)
	Angle of view: 78° (3.6 mm)
Lens Mount	M12
Angle Adjustment	Pan: 0 - 355°, Tilt: 0 - 90°, Rotation: 0 - 355°
Day & Night	Electronic
Horizontal Resolution	650 TVL
Synchronization	Internal synchronization
Video Output	1Vp-p composite output (75 Ω/BNC); Test monitor out [1Vp-p composite output (75 Ω/BNC), device line]
S/N Ratio	More than 52 dB
General	
Operating Conditions	-10 °C - 60 °C (14 °F - 140 °F) Humidity 90% or less (non-condensing)
Power Supply	12 V DC ± 10%
Power Consumption	Max. 2 W
Dimension	Φ 97.8 x 64.4 mm (ϕ 3.85” x 2.54”)
Weight	300 g (0.66 lbs)

Dimensions